

Relationship between general literacy skills and determinant factors of vegetable and fruit intake in children

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Background – Inadequate vegetable and fruit (V&F) intake is associated with higher risk of a range of important chronic diseases. Converting such knowledge into practice presents a major public health challenge, since mean consumption rates for V&F across all age groups in many countries is inferior to current recommendations, and in decline. Literacy is an important conduit for acquiring knowledge, skills and attitudes.

Objective – To determine if variations in literacy scores of children are associated with particular profiles of determinant factors of food choice.

Design – This cross-sectional study used a validated questionnaire to measure a series of determinant factors of vegetable and fruit consumption (family environment, neophobia, peer influence, preferences, nutritional awareness, perception of intake), and an aspect of food knowledge (ability to recognise specific vegetables and fruits) in two groups of children aged 7-8 years (grade 4, n=23) and 10-11 years (grade 7, n=30). These were then compared to literacy scores for each subject using a standard literacy assessment tool (St Lucia Reading Comprehension Test).

Outcomes – The most striking relationship was a strong positive correlation ($r=0.821$) between literacy scores and ability to recognise various vegetables and fruits in grade 7 boys ($p<0.005$). In grade 7 girls there was a positive relationship ($r=0.530$) between literacy level and perception of intake ($p<0.05$). Importantly, literacy scores were significantly different between genders in the older age group

Conclusion – Literacy-based nutrition education forms a large part of the way information about food and nutrition is communicated and interpreted into action. This study reports that variations in literacy scores were associated with some determinant factors of food choice. Thus, balance between literacy-based cf experiential nutrition education may be a key consideration according to both age and gender. Analysis of a larger sample size and broader age range is required to confirm these results.
